**Unit 1 Exit Tickets**

**X1** What is your team job?

* List your responsibilities for your team.
* Write 4 things you might say while doing your job on the team.

**X2** A function states the relationship between two quantities.

In the “Painting Towers Function”, which quantity is represented by the *Dependent Variable*

and which quantity is represented by the *Independent Variable?*

**X3** Write a paragraph explaining your favorite method for solving the border problem.

Include with your paragraph a simple diagram and the number expression for the method.

**X4** Today you wrote equations for each method for solving the border problem. One of those

equation was:, where represents the number of squares on

each side of the square grid and represents the number of border squares.

* Draw and label a simple diagram for this method.
* Use the equation to find the number of border squares for a 15×15 grid.

**X5** and are equivalent expressions.

* Explain what it means for two expressions to be equivalent.
* Show that these two expressions are equivalent by replacing in the expressions with a value of 6 and doing the math.

( Remember to use order of operations and show your work.)

**X6** A function states the relationship between two quantities.

* In the border problem function, the number of border squares depends on the size of the grid and is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable.
* The number of squares along each side of the grid is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable.
* On the graph, the number of border squares is placed on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ axis and the number of squares on each side of the grid is place on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ axis.

**X7** For the “Tiling a Garden Patio Function”,

* Draw Patio 6 and count the number of white squares around the garden.
* Let represent the number of white tiles and represent the patio number. Use the function rule, to find the number of white tiles when .

**X8** Today you looked at two patterns: “Toothpick Function 1” and “Tile Function 2”

* In the “Toothpick Function 1” the dependent variable is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the independent variable is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* In “Tile Function 2” the dependent variable is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the independent variable is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**X9** Study the pattern below.

* Find the growth rate for the pattern below
* Write a sentence explaining how to find the 0-stepin each pattern.
* Find the 0-step for the pattern below.
* Write a function rule for the pattern below.

Figure 1 figure 2 figure 3